GRADE THREE MATHEMATICS: MODULE 4

MULTIPLICATION AND DIVISION

Home Instructor's Guide: Days 1–9
and
Assignment Booklet 4A

Learning
Technologies
Branch

Alberta
LEARNING

Grade Three Mathematics
Module 4: Multiplication and Division
Home Instructor's Guide: Days 1–9 and Assignment Booklet 4A
Learning Technologies Branch
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This document is intended for	
Students	✓
Teachers	✓
Administrators	
Home Instructors	✓
General Public	
Other	

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- Alberta Learning, **http://www.learning.gov.ab.ca**
- Learning Technologies Branch, **http://www.learning.gov.ab.ca/ltb**
- Learning Resources Centre, **http://www.lrc.learning.gov.ab.ca**

The use of the Internet is optional. Exploring the electronic information superhighway can be educational and entertaining. However, be aware that these computer networks are not censored. Students may unintentionally or purposely find articles on the Internet that may be offensive or inappropriate. As well, the sources of information are not always cited and the content may not be accurate. Therefore, students may wish to confirm facts with a second source.

MODULE 4: MULTIPLICATION AND DIVISION

Module 4 introduces the student to multiplication and division.

The student learns to recognize situations that call for multiplication and division through a variety of problem scenarios. Situations that indicate equal groups and key words that determine the correct mathematical operation are identified.

The student is introduced to several strategies for solving multiplication and division problems. Manipulatives are used extensively throughout the module to model both operations. The use of pictures, arrays, and multiplication tables are also demonstrated. The student is encouraged to develop personal strategies for solving multiplication and division equations.

By the end of the Grade Three Mathematics program, the student should be able to recall the multiplication facts to 50 (up to 7×7 on the multiplication table). The examples in the Student Module Booklet concentrate on the facts up to 7×7, but the complete multiplication table (up to 9×9) is introduced. Strategies for remembering the facts are introduced to the student in the first half of the module. Most students will need to spend some extra time to memorize these facts. You may wish to use flash cards, games, or computer drills to help the student master these facts. In Module 5, the student will begin doing multiplication exercises that are timed to develop quick recall of the multiplication facts to 7×7.

You will notice that more time in the module is spent on multiplication than division. Since the two operations are closely related, it is very important that the student has a good understanding of multiplication before division is introduced. Division problems are solved through the use of concrete materials, such as blocks and buttons and by recalling the related multiplication fact. The student is not required to memorize division facts until the Grade 4 Mathematics program.

Extend your student's understanding of multiplication and division by setting up real life situations that call for multiplying or dividing groups. For example, in the grocery store, you might ask the student to help you figure out how many cartons of juice your family needs if there are 3 juice boxes in a carton and you need 21 juice boxes for the week. When you bake cookies, you may ask the student to figure out how many each family member would get if they were shared equally. Help the student realize how understanding multiplication and division can apply and assist in everyday situations.

DAILY SUMMARY

DAY 1: The student brainstorms to find real-life objects that come in equal groups. The student now uses the problem-solving model to solve a variety of problems involving groups. Encourage the student to develop his or her own strategies to solve the problems as students learn to apply multiplication better when they discover their own patterns and strategies. Drawing pictures and using counters are introduced as possible problem-solving strategies.

DAY 1: LESSON 1

Answers

1. 4

2. 4

3. 16

4. Many answers are possible. Accept any reasonable equal groups. Some examples are as follows:

   a. eyes, arms, hands, wings, feet or legs of birds and humans, blades on scissors, wheels on a bicycle, twins, tracks on a bulldozer

   b. tricycle wheels, three packs of juice boxes, corners on a triangle, triplets, lights on a traffic pole

   c. legs of many animals, wheels on cars or other vehicles, legs of chairs, tables, or beds

   d. fingers on a hand, toes on one person's foot, fingernails on a person's hand, minutes between the numbers on a clock

DAY 1: LESSON 2

Answers

1. The student may draw the traffic lights, use counters, skip count, do repeated addition, or do multiplication to solve the problem.

   There are 12 traffic lights on 4 poles.

2. The student may draw the chicken legs, use counters, skip count, do repeated addition, or do multiplication to solve the problem.

   There are 10 legs on 5 chickens.

3. The student may draw the faces, use counters, skip count, do repeated addition, or do multiplication to solve the problem.

    There are 16 eyes on 8 children.

4. Any picture the student draws that shows equal groups with the numbers indicated is acceptable. Students may illustrate items that have been discussed, such as people or animals, or they may draw groups of objects.

    Some examples are given here for you.

    a.
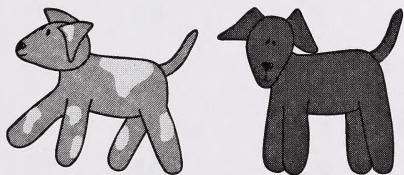
    b.
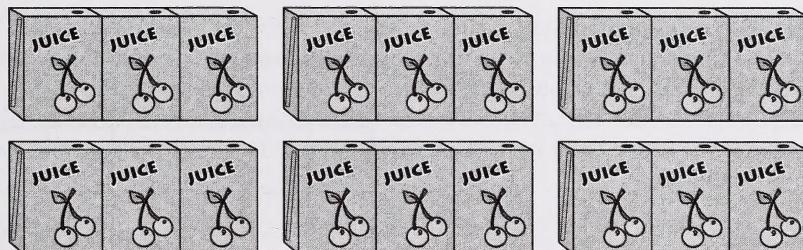
    c.

5. a. 12   b. 25
   c. 21   d. 24
   e. 16   f. 15

DAY 2: In this lesson, the student learns how to use arrays to demonstrate and describe multiplication. The student creates a small book of stickers using 2 sheets of blank paper to illustrate a variety of arrays. Grid paper is also used to show arrays. The student learns that an array is an arrangement that shows objects in rows and columns. There is no assignment in the Assignment Booklet for Day 2, but the student begins to do timed exercises with 30 questions. Assist the student by timing the activity and recording the score on the Math Facts Graph for this module. By the end of Grade Three Mathematics, the student is expected to complete 35 addition or subtraction questions in 2 minutes.

DAY 2: LESSON 1

Answers

1. a. **3 rows**   b. If there are 3 groups of 3, there are **9** in all.

2. a. 20   b. 24   c. 18   d. 21   e. 12

DAY 2: LESSON 2

Answers

1.

5 groups of 4

2.

3 groups of 6

3.

4 groups of 7

4.

2 groups of 5
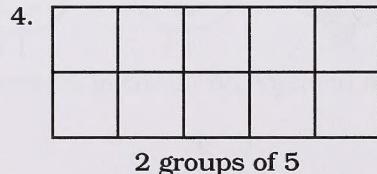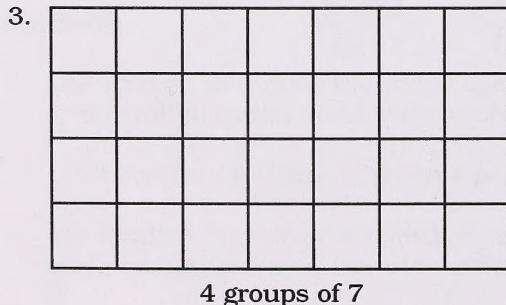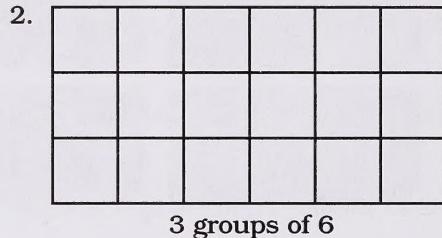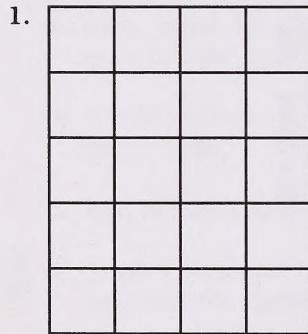
Timed Exercise Answers:

$7 + 4 = 11$	$5 + 8 = 13$	$8 + 3 = 11$	$6 + 6 = 12$	$9 + 4 = 13$	$4 + 4 = 8$
$5 + 5 = 10$	$4 + 7 = 11$	$7 + 6 = 13$	$8 + 4 = 12$	$6 + 8 = 14$	$9 + 2 = 11$
$6 + 9 = 15$	$4 + 5 = 9$	$9 + 9 = 18$	$7 + 8 = 15$	$5 + 3 = 8$	$8 + 8 = 16$

$$\begin{array}{r} 7 \\ + 4 \\ \hline 11 \end{array} \qquad \begin{array}{r} 9 \\ + 3 \\ \hline 12 \end{array} \qquad \begin{array}{r} 8 \\ + 1 \\ \hline 9 \end{array} \qquad \begin{array}{r} 6 \\ + 5 \\ \hline 11 \end{array} \qquad \begin{array}{r} 4 \\ + 6 \\ \hline 10 \end{array} \qquad \begin{array}{r} 5 \\ + 7 \\ \hline 12 \end{array}$$

$$\begin{array}{r} 5 \\ + 2 \\ \hline 7 \end{array} \qquad \begin{array}{r} 9 \\ + 6 \\ \hline 15 \end{array} \qquad \begin{array}{r} 7 \\ + 7 \\ \hline 14 \end{array} \qquad \begin{array}{r} 9 \\ + 5 \\ \hline 14 \end{array} \qquad \begin{array}{r} 6 \\ + 7 \\ \hline 13 \end{array} \qquad \begin{array}{r} 4 \\ + 8 \\ \hline 12 \end{array}$$

DAY 3: Writing number sentences by using repeated addition or multiplication is the focus for today's activities. The student learns the symbol for multiplication. The terms *product* and *factor* are introduced to describe the parts of the equation. The student is given numerous opportunities to write equations that describe pictures and arrays. If you have created a student's vocabulary poster, you may wish to add the terms *product* and *factor*.

DAY 3: LESSON 1

Answers

1. a. $3 + 3 + 3 + 3 = 12$
      $4 \times 3 = 12$ or $\begin{array}{r} 4 \\ \times 3 \\ \hline 12 \end{array}$

   b. $4 + 4 + 4 + 4 + 4 + 4 + 4 = 28$
      $7 \times 4 = 28$ or $\begin{array}{r} 7 \\ \times 4 \\ \hline 28 \end{array}$

   c. $5 + 5 + 5 + 5 + 5 = 25$
      $5 \times 5 = 25$ or $\begin{array}{r} 5 \\ \times 5 \\ \hline 25 \end{array}$

2. The student should write a multiplication number sentence for each and then read it to you. For example, the first equation may be read as 3 groups of 3 equals 9 or 3 times 3 equals 9.

   a. $3 \times 3 = 9$ or $\begin{array}{r} 3 \\ \times 3 \\ \hline 9 \end{array}$

   b. $2 \times 5 = 10$ or $\begin{array}{r} 5 \\ \times 2 \\ \hline 10 \end{array}$

   c. $4 \times 7 = 28$ or $\begin{array}{r} 7 \\ \times 4 \\ \hline 28 \end{array}$

d. $2 \times 8 = 16$ or $\begin{array}{r} 8 \\ \times 2 \\ \hline 16 \end{array}$ e. $3 \times 5 = 15$ or $\begin{array}{r} 5 \\ \times 3 \\ \hline 15 \end{array}$ f. $5 \times 4 = 20$ or $\begin{array}{r} 4 \\ \times 5 \\ \hline 20 \end{array}$

3. a.

$6 \times 3 = 18$

b.

$\begin{array}{r} 5 \\ \times 3 \\ \hline 15 \end{array}$

c.

$7 \times 2 = 14$

d.

$\begin{array}{r} 9 \\ \times 2 \\ \hline 18 \end{array}$

e.

$3 \times 8 = 24$
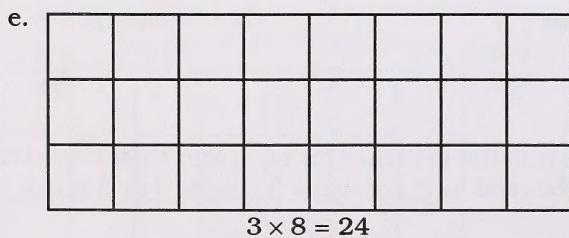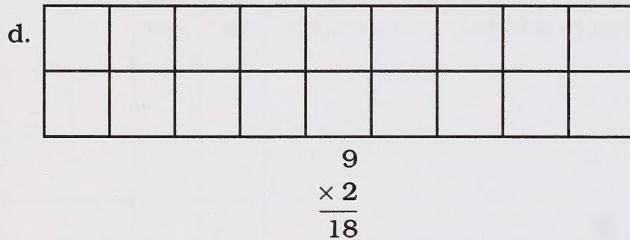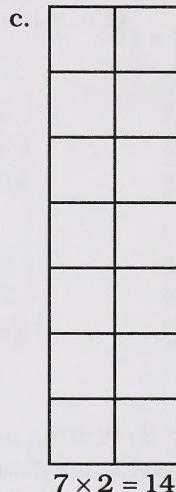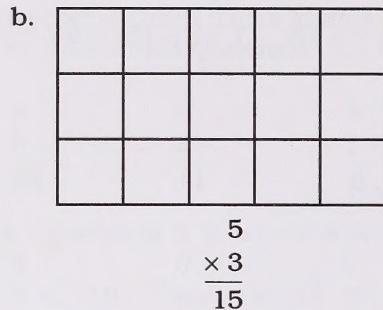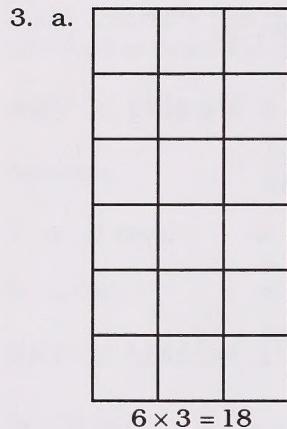
DAY 4: The student creates a large multiplication facts chart showing arrays and multiplication equations. As the student works through this project, many patterns will be discovered and discussed. This multiplication facts chart with the arrays visually and concretely demonstrates the numerical multiplication equations. There is no assignment for Day 4.

DAY 4: LESSON 1

Answers

1. The student may notice that the second factor and the answer are the same or that the answers are increasing by 1 each time (counting by 1s).

2. The student may notice that the answers are doubles of the second factor, that the answers are all even, or that the answers are counting by 2s.

3. The student may notice that the answers are counting by 3s.

4. The student may notice that the answers are even or counting by 4s.

5. The student may notice that the answers end in 0 or 5 or that the answers are counting by 5s.

DAY 4: LESSON 2

Answers

1. a. 25   b. 12   c. 12   d. 20   e. 3
     f. 50   g. 24   h. 8   i. 9   j. 30

2. a. 9   b. 8   c. 21   d. 36

DAY 5: Hundred charts are used to find multiples and examine more multiplication patterns. The student learns how multiples are related as well. Hundred charts are used to help the student count by various numbers to solve multiplication problems.

DAY 5: LESSON 1

Answers

1. The student may say the pattern is counting by 2s or colouring every second number.

2.

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

3. The student may see that alternating columns are shaded or every second number is shaded.

4. The student may mention a diagonal or slanted pattern, that the ones digit decreases by one as the tens digit increases by one, or that the pattern shows every third number coloured.

5. The student may mention every second number is coloured in the even columns, that all the numbers are even, or that the ones digits 4, 8, 2, 6, 0 repeat after 20.

6. Multiples of 4 are also multiples of 2 or every second multiple of 2.

7. The student may say that the fifth and tenth columns are shaded or that numbers ending in zero and five are shaded.

8. Yes. The tens and ones digits would be the same but a hundred digit would be added.

9. $5 \times 5 = 25$
   5 **10** **15** **20** **25**

DAY 5: LESSON 2

Answers

1. 12   2. 21   3. 40   4. 12

5. 36   6. 15   7. 35   8. 16

DAY 6: Multiplying by 0 is introduced in this lesson. The student also discovers that changing the order of the factors does not change the answer in a multiplication equation. Arrays are used to illustrate that important discovery.

DAY 6: LESSON 1

Answers

1. 0   2. 0   3. 0   4. 0

5. 0   6. 0   7. 0   8. 0

DAY 6: LESSON 2

The student should have glued in the arrays above the appropriate number sentences.

1. The number sentences are $3 \times 4 = 12$ and $4 \times 3 = 12$. The answers are the same.

2. The arrays make the same-sized rectangles, but they are turned different ways.

3. The number sentences are $5 \times 4 = 20$ and $4 \times 5 = 20$. The answers are the same.

4. The arrays make the same-sized rectangles, but they are turned different ways.

5. The number sentences are $2 \times 6 = 12$ and $6 \times 2 = 12$. The answers are the same.

6. The arrays make the same-sized rectangles, but they are turned different ways.

7. The answer remains the same when the order of the factors is changed.

8. a. 5   5   b. 18   18   c. 45   45   d. 14   14   e. 8   8

Timed Exercise Answers:

16 – 8 = **8**   17 – 7 = **10**   12 – 3 = **9**   10 – 5 = **5**   18 – 9 = **9**   15 – 6 = **9**

12 – 4 = **8**   13 – 5 = **8**   15 – 9 = **6**   11 – 4 = **7**   14 – 7 = **7**   8 – 7 = **1**

14 – 5 = **9**   17 – 8 = **9**   13 – 6 = **7**   14 – 8 = **6**   10 – 3 = **7**   11 – 9 = **2**

14	12	10	13	11	15
– 6	– 8	– 4	– 9	– 2	– 7
8	**4**	**6**	**4**	**9**	**8**

15	16	18	11	9	17
– 8	– 9	– 8	– 3	– 7	– 9
7	**7**	**10**	**8**	**2**	**8**

DAY 7: The student will complete the blank Multiplication Table and learn how to use the table to solve multiplication problems. Your student may need guidance or assistance with this. To be a useful reference, the table must be accurate. Work closely with your student and check to make sure the table is completed correctly. There is no assignment for Day 7.

Answers

×	0	1	2	3	4	5	6	7	8	9
0	0	0	0	0	0	0	0	0	0	0
1	0	1	2	3	4	5	6	7	8	9
2	0	2	4	6	8	10	12	14	16	18
3	0	3	6	9	12	15	18	21	24	27
4	0	4	8	12	16	20	24	28	32	36
5	0	5	10	15	20	25	30	35	40	45
6	0	6	12	18	24	30	36	42	48	54
7	0	7	14	21	28	35	42	49	56	63
8	0	8	16	24	32	40	48	56	64	72
9	0	9	18	27	36	45	54	63	72	81

1. 49   2. 36   3. 48

4. 48   5. 63   6. 36

7. 42   8. 72   9. 54

DAY 8: Several strategies for recalling multiplication facts are discussed in this lesson. The student learns how to use the patterns that were discovered earlier to solve multiplication problems quickly. Over the next few weeks, spend some extra time helping your student recall the multiplication facts. A few minutes each day can help the student memorize the facts and can provide a sound foundation for future learning.

DAY 8: LESSON 1

Answers

1. When 0 is a factor, the answer is always 0.

2. When 1 is a factor, the answer is always the same as the other factor. For example, if you multiply 6×1 or 1×6, the answer is 6.

3. a. 4   b. 6

4. a. 8   b. 10   c. 12   d. 14   e. 16   f. 18

5. a. 6   b. 8   c. 10   d. 12
   e. 14   f. 16   g. 18

6. a. 0   b. 5   c. 12   d. 8   e. 10   f. 0

DAY 8: LESSON 2

Answers

1. a. 35   b. 15   c. 20   d. 5   e. 25
   f. 40   g. 10   h. 30   i. 45

2. a. 20   b. 30   c. 45   d. 35   e. 40   f. 15

DAY 8: LESSON 3

Answers

1. a. 12   b. 21   c. 9   d. 3   e. 18
   f. 24   g. 6   h. 0   i. 27

2. a. 24   b. 15   c. 27   d. 21   e. 18   f. 12

DAY 9: Problem-solving skills are extended in this lesson. The student learns how to recognize key words that indicate multiplication in problems. Several problems are presented that require the student to use the skills that have been introduced in this module.

After the student has completed today's activities and assignments, have the student complete the Student's Checklist and Student's Comments. Complete the Home Instructor's Checklist and add any comments that may be helpful to the teacher.

Refer to the Items for Mailing checklist and submit your work to the teacher at the end of today's lesson.

DAY 9: LESSON 1

Answers

1. a. You need **to add** to find the answer.
   b. The word *total* indicates adding is needed.

2. a. You need **to multiply** to find the answer.
   b. The words *in all* indicate multiplying is needed.

3. a. You need **to subtract** to find the answer.
   b. The words *how many more* indicate subtracting is necessary.

4. a. You need **to multiply** to find the answer.
   b. The words *how many* indicate you need to multiply.

DAY 9: LESSON 2

Answers

1. a. The student has to find out how many cookies were made.

   b. The student needs to multiply.

c. The student may use pictures or real objects, count by 4s, make an array, do repeated addition, or use the multiplication table.

d. The student should show the method used. $6 \times 4 = 24$ or $\begin{array}{r} 6 \\ \times\ 4 \\ \hline 24 \end{array}$

e. Luke's class made 24 cookies.

f. The student should indicate if the answer made sense and answered the question.

2. a. The student has to find out how many pieces of fruit were prepared.

b. Yes, the student will have to look back to the beginning of the problem on page 62 to find out how many plates there were and how many pieces of fruit were on each plate.

c. The student needs to multiply.

d. The student may use pictures or real objects, count by 4s, make an array, do repeated addition, or use the multiplication table.

e. The student should show the method used.

$3 \times 5 = 15$ or $\begin{array}{r} 5 \\ \times\ 3 \\ \hline 15 \end{array}$

f. There were 15 pieces of fruit prepared.

g. The student should indicate if the answer made sense and answered the question.

3. a. The student has to find out how many children would get a snack.
    b. Yes, the information can be found in the answers of the previous questions.
    c. The student needs to add.
    d. The student needs to add the totals from the two previous questions.
    e. $15 + 24 = 39$
    f. Thirty-nine students could have a snack.
    g. The student should indicate if the answer made sense and answered the question.

ASSIGNMENT BOOKLET 4A

Grade Three Mathematics
Module 4: Days 1–9

Home Instructor's Comments and Questions

_____

Home Instructor's Signature

FOR SCHOOL USE ONLY

Assigned Teacher:

_____

Date Assignment Received:

_____

Grading:

_____

Additional Information:

_____

_____

_____

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_____

FOR HOME INSTRUCTOR USE
(if label is missing or incorrect)

Student File Number:

_____

Date Submitted:

_____

Apply Module Label Here

Name

Address

Postal Code

Please verify that preprinted label is for correct course and module.

Teacher's Comments

_____

Teacher's Signature

Home Instructor: Keep this sheet when it is returned to you as a record of the student's progress.

INSTRUCTIONS FOR SENDING IN THIS
DISTANCE LEARNING ASSIGNMENT BOOKLET

When you register for distance learning courses, you are expected to send in Assignment Booklets for corrections regularly. Try to send each Assignment Booklet as soon as you have completed it. Before sending your Assignment Booklet, please check the following:

- Are all the assignments completed? If not, explain why.
- Has your work been reread to be sure the spelling and details are correct?
- Is the record form filled out and the correct module label attached?

MAILING

1. Postage Regulations

Do **not** enclose letters with Assignment Booklets.

Send all letters in a separate envelope.

2. Postage Rates

Take your Assignment Booklet to the post office and have it weighed. Attach enough postage and seal the envelope. Assignment Booklets will travel faster if correct postage is used and if they are in large envelopes that are no more than two centimetres thick.

FAXING

1. Assignment Booklets may be faxed. Contact your teacher for the fax number.

2. All faxing costs are the responsibility of the sender.

E-MAILING

Assignment Booklets may be e-mailed. Contact your teacher for the e-mail address.

Grade Three Mathematics

Module 4

Multiplication and Division

Assignment Booklet 4A

Grade Three Mathematics
Module 4: Multiplication and Division
Assignment Booklet 4A
Learning Technologies Branch

This document is intended for	
Students	✓
Teachers	✓
Administrators	
Home Instructors	✓
General Public	
Other	

You may find the following Internet sites useful:

- Alberta Learning, **http://www.learning.gov.ab.ca**
- Learning Technologies Branch, **http://www.learning.gov.ab.ca/ltb**
- Learning Resources Centre, **http://www.lrc.learning.gov.ab.ca**

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1. Journal Entry

   Tell about two different ways that you used to help solve the problems in Day 1. Which way is your favourite strategy? Why?

   _____

   _____

   _____

   _____

   _____

2. Draw a picture to show the following:

a.	b.	c.
3 groups of 6	4 groups of 5	5 groups of 2

3. Solve the problems. Show your work. Write the answer in a sentence.

| Understand the problem. | ⇨ | Make a plan. | ⇨ | Try the plan. | ⇨ | Look back. |
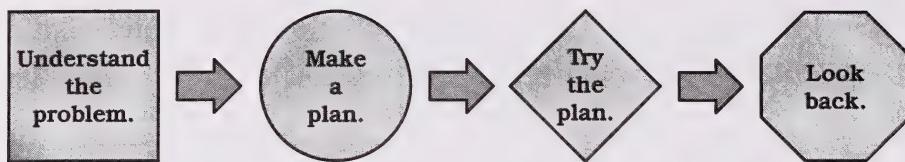
a. How many wheels do 4 cars have in all?

_____

b. How many legs do 3 spiders have in all?

_____

1. Circle the array that shows 5 groups of 4.

2. Circle the array that shows 4×3.

3. Use stickers, stamps, or drawings to show each equation. Write the answer to complete the number sentence.

a.

$$6 + 6 + 6 + 6 = \underline{\hspace{2cm}}$$

b.

$$5 \times 3 = \underline{\hspace{2cm}}$$

c.

$$2 \times 6 = \underline{\hspace{2cm}}$$

d.

$$4 \times 4 = \underline{\hspace{2cm}}$$

e.

$$8 \times 3 = \underline{\hspace{2cm}}$$

4. Write a multiplication number sentence for each question.

a.

_____
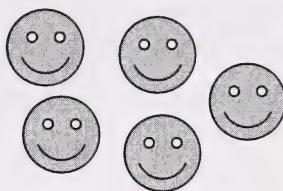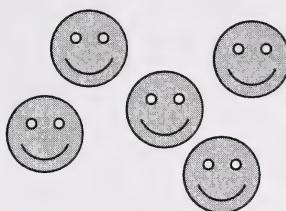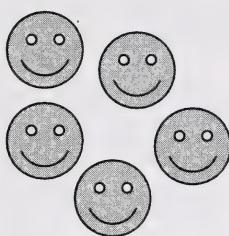
b.

_____
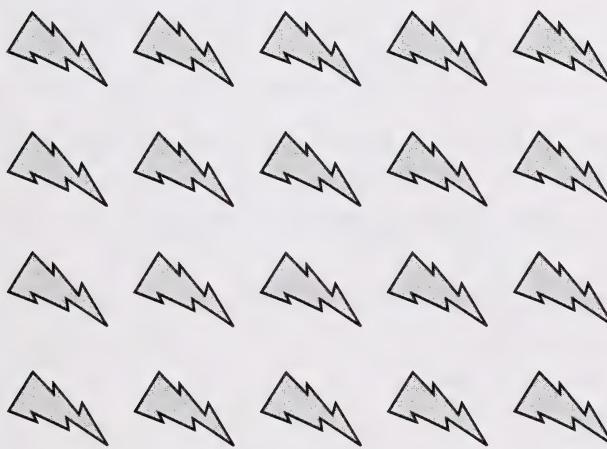
c.

_____

1. Journal Entry

   How can patterns help you find answers to multiplication questions? Which patterns do you find easiest to remember?

   _____

   _____

   _____

   _____

   _____

2. a. Use a pencil to circle the multiples of 3 on the hundred chart below.

   b. Use a coloured pencil or crayon to colour the multiples of 6.

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

3. What do you notice about the numbers that are circled and coloured?

_____

4. What number are you counting by when you land on the numbers that are circled and coloured?

_____

5. Use your charts of multiples or any other way you like to find the answers.

    a. $2 \times 6 =$ _____   b. $4 \times 4 =$ _____

    c. $5 \times 2 =$ _____   d. $1 \times 8 =$ _____

    e. $3 \times 9 =$ _____   f. $4 \times 7 =$ _____

    g. $2 \times 8 =$ _____   h. $5 \times 6 =$ _____

    i. $4 \times 9 =$ _____   j. $3 \times 5 =$ _____

1. What happens when you multiply any number by zero? _____

_____

2. Write the answers.

    a. $5 \times 0 =$ _____   b. $0 \times 4 =$ _____   c. $7 \times 0 =$ _____

   d. $0 \times 10 =$ _____   e. $0 \times 125 =$ _____   f. $0 \times 20 =$ _____

3. Cut out an array for each of the following equations using the centimetre grid paper. Glue the array above each equation and complete the number sentence.

a.

                $3 \times 5 =$ _____

b.

                $5 \times 3 =$ _____

c.

                $4 \times 2 =$ _____

d.

                $2 \times 4 =$ _____

4. What did you discover about multiplication when you looked at number sentences like the ones above?

_____

_____

5. How can that discovery help you do multiplication questions? _____

_____

6. Write the answer.

    a. $6 \times 3 =$ _____ $3 \times 6 =$ _____

    b. $4 \times 7 =$ _____ $7 \times 4 =$ _____

    c. $5 \times 8 =$ _____ $8 \times 5 =$ _____

    d. $6 \times 0 =$ _____ $0 \times 6 =$ _____

    e. $2 \times 9 =$ _____ $9 \times 2 =$ _____

    f. $7 \times 5 =$ _____ $5 \times 7 =$ _____

    g. $9 \times 1 =$ _____ $1 \times 9 =$ _____

1. Journal Entry

    Which multiplication facts do you find easy to remember? Why do you think that
    is? How do you plan to practise the facts that are harder for you to remember?

    _____

    _____

    _____

    _____

    _____

2. Write the answers. Use your favourite strategies to help you find the answers.

    a. $5 \times 5 =$ _____   b. $3 \times 1 =$ _____   c. $0 \times 9 =$ _____

    d. $2 \times 8 =$ _____   e. $5 \times 6 =$ _____   f. $4 \times 3 =$ _____

    g. $8 \times 5 =$ _____   h. $3 \times 7 =$ _____   i. $1 \times 8 =$ _____

    j. $9 \times 2 =$ _____   k. $5 \times 4 =$ _____   l. $3 \times 6 =$ _____

    m. $7 \times 1 =$ _____   n. $0 \times 5 =$ _____   o. $6 \times 2 =$ _____

    p. $7 \times 5 =$ _____   q. $5 \times 3 =$ _____   r. $4 \times 0 =$ _____

    s. $3 \times 8 =$ _____   t. $2 \times 4 =$ _____   u. $1 \times 5 =$ _____

Solve the problems. Show your work. Write the answer in a sentence.

Understand the problem. → Make a plan. → Try the plan. → Look back.
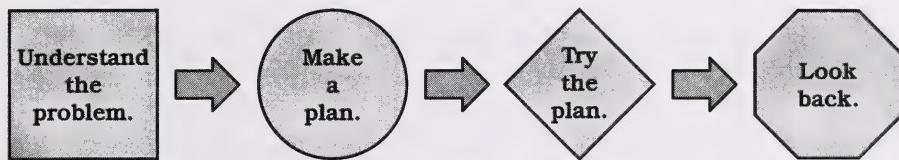
Sarah has a bug collection. She has 4 butterflies and 3 spiders.

[1]
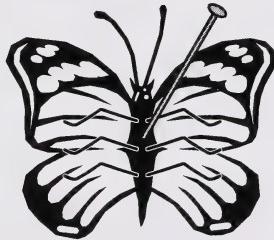
1. How many legs do the butterflies have in all?

2. How many legs do the spiders have in all?

[1] Image Club ArtRoom/EyeWire Collection/Getty Images

Timed exercise: 2 minutes

Ask your Home Instructor to time you for 2 minutes. Do as many questions as you can in two minutes. Write how many you completed.

$14 - 6 =$ _____ $13 - 4 =$ _____ $16 - 7 =$ _____ $12 - 5 =$ _____

$18 - 9 =$ _____ $14 - 8 =$ _____ $10 - 6 =$ _____ $11 - 8 =$ _____

$13 - 6 =$ _____ $17 - 8 =$ _____ $17 - 7 =$ _____ $12 - 6 =$ _____

$13 - 7 =$ _____ $15 - 8 =$ _____ $16 - 7 =$ _____ $9 - 7 =$ _____

$13 - 8 =$ _____ $10 - 5 =$ _____ $14 - 7 =$ _____ $11 - 2 =$ _____

12	17	11	15	13
− 7	− 9	− 4	− 8	− 5

11	16	15	12	10
− 6	− 8	− 7	− 4	− 8

Number completed	
Number correct	

STUDENT'S CHECKLIST
MODULE 4: DAYS 1 TO 9

I can . . .	Put a check mark beside the things you can do.
show multiplication with pictures and real things	
make an array for a multiplication number sentence	
use different ways to solve a multiplication number sentence	
remember some multiplication facts	
use multiplication to solve problems	

STUDENT'S COMMENTS

Something I don't really understand is _____

_____

_____

_____

One thing I liked in this part of the module is _____

_____

_____

HOME INSTRUCTOR'S CHECKLIST

Check **yes** or **not yet** for each question.

Can the student do the following?

- use manipulatives and pictures to show multiplication   ❏ yes   ❏ not yet

- use arrays to show multiplication   ❏ yes   ❏ not yet

- use a variety of strategies to solve multiplication equations   ❏ yes   ❏ not yet

- recall some multiplication facts such as the 1, 2, 3, and 5 times tables   ❏ yes   ❏ not yet

- use a multiplication table   ❏ yes   ❏ not yet

- solve problems involving multiplication   ❏ yes   ❏ not yet

HOME INSTRUCTOR'S COMMENTS

_____

_____

_____

_____

_____

_____

GRADE THREE MATHEMATICS: ASSIGNMENT BOOKLET 4A
ITEMS FOR MAILING

In the box to the left of the listed items, please check each item as you include it for mailing to the teacher.

DAY 2 AND 3
❑ Array booklet

DAY 9
❑ Assignment Booklet 4A